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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,453	07/03/2001	Teuvo Maunula	1003277-000025	8362
7590	07/12/2006			EXAMINER
Ronald L. Grudziecki BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404				NECKEL, ALEXA DOROSHENK
			ART UNIT	PAPER NUMBER
				1764

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/897,453	MAUNULA, TEUVO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alexa D. Neckel	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 February 2006.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-11,13,21,27-32 and 34 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-11,13,21,27-32 and 34 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant's specification fails to disclose how the system is structurally "adapted" to enable the claimed ratio adjustments.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Due to the lack of support in the disclosure as to how the system is structurally "adapted" to enable the claimed ratio adjustments, the claim is unclear.

5. Claims 5-7, 10, 11, 31, and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-7, 10, 11, 31, and 32 each depend upon claim 1 which uses the closed transitional language "consists of". A claim which depends from a claim which "consists of" the recited elements or steps cannot add an element or step. Claims 5-7, 10, 11, 31, and 32 are unclear as each of these claims attempt to recite additional elements to those recited in claim 1.

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claims 1, 8-9, 27-28, 30, and 34 are rejected under 35 U.S.C. 103(a) as unpatentable over WO 00/21647.

The rejection of these claims as presented in paragraph 5 of the Office Action dated September 2, 2005 continues to stand. Claim 34 is rejected for the same reasons set forth for claim 1 in that paragraph. In addition, with regard to the newly amended closed transitional language of the claims as well as new claim 34, it has been held that the omission of an element and its function is obvious if the function of the element is not desired. Ex parte Wu , 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989). See also In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965); and In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975). As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to eliminate the additional catalyst (14) bed and its function in order to reduce the cost of an additional unit. During a cold start of the entire device, the first catalyst (14) would not be functioning and therefore once would have a

reasonable expectation of success in eliminating this catalyst bed that the remaining elements of the device would continue to function.

8. Claims 3, 4, and 29 continue to be rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21647 as presented in paragraph 8 of the Office Action dated September 2, 2005.

9. Claims 5-7, 10, 13, 21, 31, and 32 continue to be rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21647 in view of Shinzawa et al. (4,887,427) or DE 3,518,756 as presented in paragraph 9 of the Office Action dated September 2, 2005.

10. Claim 11 continues to be rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/21647 in view of Shinzawa et al. (4,887,427) or DE 3,518,756 as applied to claim 10 above and further in view of EP 758,713 as presented in paragraph 10 of the Office Action dated September 2, 2005.

11. Claims 1, 3-5, 8, 9, 11, 27-30, and 34 continue to be rejected under 35 U.S.C. 103(a) as being unpatentable EP 758,713 as presented in paragraph 11 of the Office Action dated September 2, 2005.

Claim 34 is rejected for the same reasons as set forth for claim 1 of that paragraph.

### ***Response to Arguments***

#### **Claim Amendments**

Applicant argues that claims 5, 6, 10, 31, and 32 are consistent with the "consisting of" language of claim 1.

The examiner respectfully disagrees. Indeed, when the phrase “consisting of” appears in a clause of the body of a claim, rather than immediately following the preamble, it limits only the element set forth in that clause; other elements are not excluded from the claim as a whole. In this instance both the preamble and the clause associated with the phrase “consisting of” refer to the same “system combination”. As such, claims dependent upon claim 1 which recite additional structural elements are improper.

Claim Objections

The objection to the claim is withdrawn due to applicant's amendment to the claim.

35 USC 112

Applicant's amendments to claim 11 have resulted in new rejections under 35 USC 112, first and second paragraphs. See above.

35 USC 103

Applicant argues that it would not have been obvious to eliminate catalyst 30 from WO 00/21647, as presented in the Office Action of February 18, 2005.

Since this rejection is no longer applied as it was written, this argument is moot. Though the examiner has incorporated some of the previous rational with regard to eliminating an element and its function, it is noted that a different catalyst is suggested to be eliminated than that of the February 18, 2005 Office Action.

With regard to applicant's further argument that motivation to eliminate a catalyst bed from the WO 00/21647 reference, obviousness may sometimes be based on the

common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference. *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Applicant argues that there is no support or motivation to effect the design changes as established by the examiner.

EP '713 discloses all of the structural elements set forth in the instant claims, except for the specific arrangement of the units, it would have been obvious to one skilled in the art at the time of the invention was made to select an appropriate arrangement for the units since positioning the parts of the apparatus is no more than a design choice, and well within the knowledge of one skilled in the art so as to achieve the purification attendant therewith, absence showing any unexpected results and since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. It should be also noted that where the only difference between the prior art and the claims is a recitation of a specific arrangement of the units, and the units having the claimed elements would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device.

Additionally, obviousness may sometimes be based on the common knowledge of persons skilled in the art without relying on a specific suggestion in a particular reference. *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa D. Neckel whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Calderola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alexa D. Neckel  
Primary Examiner  
Art Unit 1764

July 6, 2006



ALEXA DOROSHENK NECKEL  
PRIMARY EXAMINER